

L 11384-67

ACC NR: AT6036508

grams, EKG's and studies of the phase of cardiac activity. A dosed physical exercise test and passive orthostatic test were conducted. Tests were repeated after the experiment until all observed shifts had disappeared.

During hypokinesia there are decreases in arterial pressure, vascular tonus, and cardiac output and a noticable increase in peripheral resistance. These changes reach their limits in 4—8 days followed by stabilization at this level. Transition to a normal regimen produces noticeable shifts reflected in preliminary restriction of mobility and decreased blood hydrostatic pressure. Even under conditions of physical rest there is steady tachycardia, an increased volume of minute blood circulation, decreased vascular tonus, altered cardiac bioelectric activity and altered functional capacity of the myocardium. These changes are more dramatic during physical exercise and especially during the orthostatic test.

The most pronounced shifts reflecting a deconditioned state were observed within the first two or three days. Individual shifts were noticed 10—15 days after the experiment. More noticeable changes were observed in the water immersion group than in the bed-rest group.

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Deconditioning symptoms were less pronounced in subjects who exercised or compressed their lower extremities during hypokinesia. 0

The genesis of the observed shifts is complicated. Most likely, the inert state of adaptive mechanisms which regulate cardiovascular activity during transition from one level of physical activity to another is responsible. It is suggested that under conditions of prolonged hypokinesia and decreased hydrostatic pressure, proprioceptive and angioreceptive signalization is decreased, which leads to a weakening of reciprocal afferent-effector activity. Transition to activity leads to a steady recovery of these disrupted relationships. [W.A. No. 22; ATD Report 66-116]

SUB CODE: 06 / SUBM DATE: 00May66

Cord 3/3 egk

L 11364-67 EWT(1) SCTB DD/GD

ACC NR: AT6036509

SOURCE CODE: UR/0000/66/000/000/0081/0083

AUTHOR: Buyanov, P. V.; Galkin, A. V.; Torent'yov, V. G.; Sheludyakov, Ye. Ye.;
Pisarenko, N. V.; Yaroshenko, G. L. 32

ORG: none

TITLE: Problems of the selection of candidates for special crews [Paper presented at conference on problems of space medicine held in Moscow from 24-27 May 1966]

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii, Moscow, 1966, 81-83

TOPIC TAGS: cosmonaut selection, bioastronautics, space physiology, space psychology, psychophysiology, cosmonaut training

ABSTRACT: The systematic exposure of young test pilots to aviation or space-flight conditions is of importance relative to perfecting methods for selecting pilots and cosmonauts. Considering the caliber of professional activity, the test pilot must be in excellent physical and mental condition.

Selection takes place in three stages: preliminary ambulatory selection, stationary examination in special medical establishments, and elimination during the first months of occupational activity./

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During preliminary selection, the medical commission was given documents describing anamnesis data, general and physical development, and medical treatment in the preceding year. After familiarization with these documents, nearly half the applicants were rejected due to therapeutic status or poor eyesight. During preliminary ambulatory examinations, medical specialists (therapists, otolaryngologists, neuropathologists, surgeons) analyzed blood, urine, EKG's during rest and after exercise, x-ray films of thoracic organs and nasal accessory sinuses, and conducted vestibular and other functional tests. In some cases, spinal x-rays, pressure chamber exposure, etc., were conducted.

Rejections during the first examination phase were high. The main reasons for rejection were ear, nose, and throat ailments, neurocirculatory dystonia, and vestibulo-autonomic instability.

During the stationary phase, an expanded program of clinical, physiological, and specialized tests was used. From 25 to 50% of the candidates who had passed the first phase of examinations were rejected. The main causes of rejection were diseases of internal organs (nearly half the rejects), vestibulo-autonomic instability, ear, nose, and throat diseases, and spinal disorders.

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In recent years, rejection of candidates during the second phase has declined as a result of a more detailed examination during the first phase and new methods of examination. For instance, substitution of the standard OR-10 vestibular test with I. I. Bryanov's test (summation of vestibular stimuli during Coriolis accelerations) significantly decreased the number of rejects due to vestibular disorders. At the same time, ear, nose, and throat rejects were more accurately diagnosed by substituting otoscopy and manometric examinations (Boyachev and Gerasimov manometers) with pressure chamber tests. Spinal x-rays during the ambulatory phase could not be justified.

The occupational activity of a number of candidates produced some changes which precluded their further participation and caused their rejection from testing work. About 10% of the candidates were found to be unsatisfactory during this phase.

These data permit the examiner to foresee probable deviations in health under occupational conditions during the selection phase, to evaluate individual methods applicable to selection, and to prognose work capacity under the influence of external factors. [W.A. No. 22; ATD Report 66-116]

SUB CODE: 05,06 / SUBM DATE: 00May66

Cord 3/374/

ACC NR: AP7000137

SOURCE CODE: UR/0177/66/000/011/0040/0044

AUTHOR: Buyanov, P. V. (Lieutenant colonel, Medical service, Candidate of medical sciences), Berezovkin, A. V. (Major, Medical service)

ORG: none

TITLE: The effect of systematic exposure to high temperatures on the human organism

SOURCE: Voenno-meditsinskiy zhurnal, no. 11, 1966, 40-44

TOPIC TAGS: human physiology, hyperthermia, biologic metabolism, heat biologic effect

ABSTRACT: Seventeen men aged 22—26 were tested in a hot room at temperatures ranging from 50—70C for one hr per day or every other day. The cardiovascular system, peripheral blood, respiration, and urine were analyzed. Orthostatic tests were also given in some tests. The changes observed during this experiment were judged to be typical of systematic exposure to high temperatures. Systematic exposure, especially on a daily basis, resulted in decreased arterial pressure, pulse rate, cardiac output, gas exchange, and pulmonary ventilation. These changes were felt to reflect the onset of processes of adaptation to high temperatures important to increasing human resistance to this factor. The data indicated that the individual physiological characteristics of the organism should be considered when selecting

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UDC: 612.591-06

ACC NR: AP7000137

personnel for service in hot climates or conditions. It was felt that it would be best first to examine selected subjects under hyperthermal conditions to determine their individual resistance to heat. Periodic medical examinations were recommended to test adaptive reactions or the collapse of acquired adaptation to heat. Orig. art. has: 1 table. [CD]

SUB CODE: 06/ SUBM DATE: none/ ATD PRESS: 5109

Card 2/2

L 08268-67 FSS-2/EWT(1)/EEC(k)-2 SCTB TT/DD/GD/GW

ACC NR: AT6036481

SOURCE CODE: UR/0000/66/000/000/0036/0637

AUTHOR: Arzhanov, I. M.; Bryanov, I. I.; Baturenko, V. A.; Beregovkin, A. V.; Buyanov, P. V.; Kovalev, V. V.; Kondrakov, V. M.; Krasovskiy, A. S.; Kuznetsov, O. N.; Kuznetsov, S. V.; Nikitin, A. V.; Nistratov, V. V.; Teret'yev, V. G.; Fedorov, Ye. A.; Khlebnikov, G. V.

ORG: none

TITLE: Some results of the postflight examination of P. I. Belyayev and A. A. Leonov following their flight on the Voskhod-2 spacecraft [Paper presented at the Conference on Problems of Space Medicine held in Moscow from 24 to 27 May 1966]

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii, Moscow, 1966, 36-37

TOPIC TAGS: space medicine, postflight medical examination, bodily fatigue, body weight, cardiovascular system, oculocardiac reflex, unconditioned reflex, space psychology, oxygen consumption, respiration, pulmonary ventilation/Voskhod-2

ABSTRACT: Postflight examinations of the Voskhod-2 crew members, Leonov and Belyayev, were performed on the third and fourth days after the flight and again a month later. The cosmonauts complained of light fatigue. They were found to have hyperemia of the mucosa of the nose and throat and conjunctivitis of the eyelids and eyeballs. They had lost weight

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Their pulse showed a certain lability. Pulse frequency rose significantly during mild physical exertions and changes in the position of the body. There was an increase in intraventricular conductivity, an increase in the systolic index (7—11%), and a delay in restoration of hemodynamic indices after physical exercise.

Belyayev's oxygen consumption increased by 23% and Leonov's by 14% as compared with preflight levels. Vital capacity of the lungs diminished by 8—12%, while pulmonary ventilation increased by 51—18%.

Neurological examinations revealed a light tremor of the fingers, a high orthostatic reflex with an absence of pulse reaction to the oculo-cardiac reflex, and an increase in the slow bioelectrical activity of the brain cortex. Psychological tests revealed an increase in distribution and in the middle magnitudes of the duration of the period of sensory motor reaction. Since this was not accompanied by errors, it is possible to assume that the fatigue observed in cosmonauts was a compensatory reaction. Blood and urine examination on the third day after flight did not differ substantially from preflight levels. Biochemical examination uncovered an increase of chlorides, adrenalin, noradrenalin, and 17-oxycorticosteroids in the urine.

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The observed shifts in physiological indices were short-term and reversible. They indicated the development of moderately marked fatigue in the subjects. Thus, despite the complexity of the flight, the postflight examinations revealed only moderate functional changes in the two cosmonauts. There was no difference in the nature of these changes in the cosmonauts. This indicates a high degree of training and a good neuropsychological and physical preparation for spaceflight.

[W.A. No. 22; ATD Report 66-116]

SUB CODE: 06, 22 / SUBM DATE: 00May66

Card 3/3

eqk

BUYANOV, P.V.

Prospects for the development of the Mytishchi District. Gor.khoz.
Mosk. 35 no.4:16-18 Ap '61. (MIRA 14:5)

1. Pervyy zamestitel' predsedatelya Ispolkoma Mytishchinskogo raysoвета.
(Mytishchi---Regional planning)

BUYANOV, R., inzhener-mayor; ROY, E., starshiy inzhener-leytenant

Flying ships and automobiles. Starsh.-serzh. no.9:36-37 S '61.
(MIRA 15:2)
(Ground-effect machines)

87452

S/195/60/001/002/008/010
B004/B067

11.1220

AUTHOR: ~~Buyanov, R. A.~~

TITLE: Study of the Conversion of Ortho-hydrogen Into Para-hydrogen
on Solid Catalysts at Temperatures of 78 - 64°K. I

PERIODICAL: Kinetika i kataliz, 1960, Vol. 1, No. 2. pp. 306 - 312

TEXT: When ordinary hydrogen containing approximately 75% o-H₂ at room temperature is liquefied, the equilibrium between the two modifications is shifted, and heat is generated. This has disadvantageous effects on the storage of liquid H₂. Therefore, the author attempted to obtain highly active catalysts that warrant equilibrium between o-H₂ and p-H₂ during liquefaction. A largely inhomogeneous field of paramagnetic catalyst molecules is supposed to influence the reorientation of the nuclear spin of hydrogen. The following relation is given for the rate of reorientation: $\mu_{\text{eff}} = 2\sqrt{S(S+1)} = \sqrt{n(n+2)}$ (1). S is the resulting spin moment of the catalyst ion; n is the number of unpaired electrons of the catalyst

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ion; μ_{eff} is the effective magnetic moment expressed in Bohr magnetons. The hydroxides of Cr^{3+} , Mn^{4+} , Fe^{3+} , Co^{3+} , Ni^{2+} ions, i.e., of ions of the transition elements in which the 3d-shell is being formed, were assumed to be adequate catalysts. The gels of the hydroxides $\text{Cr}(\text{OH})_3$, $\text{Fe}(\text{OH})_3$, $\text{Ni}(\text{OH})_2$ were produced by slowly precipitating the corresponding chlorides or nitrates with dilute lyes. $\text{Mn}(\text{OH})_4$ was obtained by reducing permanganate with ethanol, while $\text{Co}(\text{OH})_3$ was formed by simultaneous precipitation and oxidation of Co^{2+} . The iron hydroxide was heated at 135°C for 24 hours, while the other hydroxides were heated at 90 - 100°C for the same time. Besides, the catalytic properties of chromium-nickel, palladium, and platinum catalysts, of active charcoal of the type AF-4 (AG-4), and of the oxides Cr_2O_3 , NiO , and Fe_2O_3 were examined. Gels and active charcoal were activated by heating in a vacuum of $1 \cdot 10^{-2}$ mm Hg. Chromium-nickel, palladium, and platinum catalysts were activated at 140°C in hydrogen. The experiments were made at 78 - 64°K, with liquid-

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nitrogen cooling, i.e., at 60 - 600 mm Hg in a stationary apparatus and at 2 - 150 atm in a continuous-flow apparatus. The following relation is given for the calculation of the rate constant k:

$$k = (n_c/V_k) \ln[(1 - C_o/C_{eq})/(1 - C/C_{eq})]; n_c \text{ denotes the amount of hydrogen}$$

in mole·sec⁻¹ passing through the apparatus; V_k is the amount of catalyst, cm³; C_o is the initial, C_{eq} the equivalent, and C the concentration of p-H₂ in %, which is formed in the course of the experiment. The pressure dependence of k is expressed by the equation: $k = k_o(t)P^n$. The following

results were obtained: The magnetically strongly diluted paramagnetic ions of the transition metals in the above hydroxides lead to a high catalytic activity. The magnetic concentration of these ions in the oxides, however, causes antiferromagnetic phenomena and reduces the catalytic activity. In the hydroxides, the ratio k/μ_{eff}^2 was sufficiently constant. A change in the rate of gas passage between 950 and 2300 l/h

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did not affect the catalytic process which is accelerated by reducing the grain size of the catalyst from 4.4 mm to 0.8 - 1.1 mm. The following activation energies were obtained (in cal/mole): chromium-nickel catalyst: 45 - 110, $\text{Cr}(\text{OH})_3$: 50 - 130, $\text{Mn}(\text{OH})_4$: 120 - 140, $\text{Fe}(\text{OH})_3$: 200 - 250, $\text{Ni}(\text{OH})_2$: 70 - 170. On contact with air, hydroxide catalysts lose their activity may be reactivated. The activity loss of the chromium-nickel catalyst is irreversible. The catalysts recommended here are inexpensive and stable, and may be used to produce p- H_2 in large quantities. The author thanks G. K. Boreskov, Corresponding Member AS USSR, for supervising the work and for a discussion. There are 4 tables and 6 references: 4 Soviet, 1 British, and 1 German.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy, g. Dubna
(Joint Institute of Nuclear Research, Dubna)

SUBMITTED: March 16, 1960

Card 4/4

88244

S/195/60/001/003/009/013
B013/B058

11/220

AUTHOR: Buyanov, R. A.

TITLE: Study of the Reaction of Transformation of Ortho Hydrogen in Para-hydrogen on Solid Catalysts. II. Reaction in the Liquid Phase

PERIODICAL: Kinetika i kataliz, 1960, Vol. 1, No. 3, pp. 418 - 420

TEXT: In this paper the author continued the study started in Ref. 1 of catalysts suitable for the transformation of ortho hydrogen into para-hydrogen. Specially prepared hydroxides $\text{Cr}(\text{OH})_3$, $\text{Mn}(\text{OH})_4$, $\text{Fe}(\text{OH})_3$, $\text{Co}(\text{OH})_3$, and $\text{Ni}(\text{OH})_2$ (without carrier) as well as a chrome-nickel catalyst were studied in a flowing-thru installation. The temperature amounted to 21° to 22°K , the pressure was varied from 2 to 150 atm. The method of preparing the catalysts and the experimental installation used were already described in Ref. 1. The chrome-nickel catalyst, $\text{Mn}(\text{OH})_4$, $\text{Fe}(\text{OH})_3$, and $\text{Cr}(\text{OH})_3$ were best suited for work in the liquid phase. The
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liquid hydrogen was passed through at various rates, of from 50 to 240 l/h. The initial para-hydrogen concentration amounted to 25%. The gas was studied, as previously (Ref. 2), in a continuous motion self-recording gas analyzer. The reaction vessel was cooled with liquid hydrogen, the catalysts were activated as in Ref. 1 with the exception of the chrome-nickel catalyst. The latter was heated to 140°C in a hydrogen current with a volume rate of 4000 h⁻¹. The constants k of the reaction rates were calculated from the equation for the first-order reaction, as in Ref. 1. It was determined in previous experiments (Ref. 1) at 78 - 64°K that the rate constant only decreases to the critical hydrogen temperature. The liquefaction of hydrogen led to a great increase of the rate constant. As a rule it is bigger at 21° to 22°K than at 78°K. The ratio of these constants ($k_{22^{\circ}\text{K}}/k_{78^{\circ}\text{K}}$) differs for the various catalysts (Table) and characterizes the temperature-dependent relative-activity changes. The equilibrium concentration of para-hydrogen depends on the temperature. The isothermal process on the

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lowest temperature level must be warranted in order to obtain good functioning of the catalyst in the liquid phase. This can be obtained by immersing the reaction vessel and the preceding condenser coil in a bath of liquid hydrogen. The heating of the reaction vessel can be reduced by two simultaneously acting factors: through reduction of the maximum heat of evaporation of the hydrogen and through optimum dissipation of heat from the reaction vessel. This can be obtained best by maintaining a pressure of up to 0.8 in the liquefying bath and of from 1.8 to 2.5 kg/cm² in the reaction vessel. G. N. Boreskov, Corresponding Member AS USSR, is thanked for conducting the study. There are 1 table and 2 Soviet references. ✓

ASSOCIATION: Ob'yedinennyy institut yadernykh issledovaniy, g. Dubna
(Joint Institute of Nuclear Research, Dubna)

SUBMITTED: March 16, 1960

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Катализаторы a)	$h_{22^{\circ}\text{K}} \cdot 10^3$ мол./см ³ .сек b)	$h_{22^{\circ}\text{K}}/h_{78^{\circ}\text{K}}$
Хромоникеле- вый c)	1,6—2,1	1,05—1,25
Cr (OH) ₃	0,9—1,6	1,8—2,2
Mn (OH) ₂	1,6—2,1	1,75—2,2
Fe (OH) ₃	0,9—2,1	0,92—0,93
Co (OH) ₂	0,32—0,34	1,2—1,4
Ni (OH) ₂	0,5—0,8	1,1—1,5

Legend to the Table. The values of k at T = 22°K, and the ratio $k_{22^{\circ}\text{K}}/k_{78^{\circ}\text{K}}$

a) catalysts; b) mole/cm³.sec; c) chrome-nickel

89747

5.1330

11.3110

S/064/61/000/002/001/001'
B101/B206

AUTHORS: Buyanov, R. A., Zel'dovich, A. G., Pilipenko, Yu. K.
TITLE: Some problems of catalytic production of liquid p-hydrogen
PERIODICAL: Khimicheskaya promyshlennost', no. 2, 1961, 105-108

TEXT: Three methods of incorporating reaction vessels for catalytic production of p-hydrogen into the system of a hydrogen-liquefying plant are described. In the introduction, the purpose of producing p-H₂ is explained (long durability owing to low evaporation losses), as well as the use of hydrogen for producing deuterium, as charge for targets and bubble chambers and as rocket fuel. The three methods of incorporating reaction vessels are shown diagrammatically. Schemes a and b were elaborated at the kriogennaya laboratoriya (Cryogenic Laboratory) of the authors' Institute. Scheme b was proposed by A. B. Fradkov. In the liquefier of the type a, the hydrogen leaving the heat exchanger (1) of the cold zone under high pressure is branched into two currents. One part enters into the collecting vessel (4) for H₂ of normal composition (n-H₂) through throttle valve (8). The other part entering into cooling coil (3) through throttle valve (9) is liquefied

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entirely and supercooled owing to the effect of partial evaporation of $n\text{-H}_2$ in (4). From (3) H_2 enters into reaction vessel (2), where it is converted into $p\text{-H}_2$. Evaporation and heating by $3\text{-}4^\circ\text{K}$ sets in owing to the liberated heat of conversion. Dissipation of the heat of conversion and reliquefaction takes place in cooling coil (3). The pressure in the cooling coils is regulated by throttle capillaries. The $p\text{-H}_2$ flows through (10) into the collecting vessel (5), from where it is filled into Dewar vessels through valve (6). The $n\text{-H}_2$ vapor is drawn off through the countercurrent tubes of the heat exchanger. This variant does not warrant an isothermal course of the process and is therefore only suitable for the production of 92-93% $p\text{-H}_2$. In the type 6, reaction vessel (2) is designed as a coil and immersed into the collecting vessel (4) for $n\text{-H}_2$. Heat dissipation occurs not only in (3) but also through the walls of (2). This variant permits the production of 99.7% $p\text{-H}_2$. The hydrogen enters from (1) through valve (8) into the collecting vessel (5), where a pressure of 1.8 to 3.0 kg/cm^2 is maintained a helium valve (11). The vapor and the liquid $n\text{-H}_2$ flow through (11) into the collecting vessel (4), where the pressure is 0.5 kg/cm^2 , and is led back to

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(1). The liquid H_2 enters from (5) into reaction vessel (2) and cooling coil (3), and is drained off as p- H_2 by means of valve (6). In the variant 6, the reaction vessel (2) is fed by a separate line with H_2 enriched with 49% p- H_2 . The n- H_2 circulates separately and serves only as cooler. The H_2 to be converted is purified in adsorbers filled with active carbon and cooled by liquid N_2 . Partial conversion into p- H_2 sets in already here. Possibilities of incorporating such reaction vessels into existing hydrogen-liquefying plants are discussed, and it has been found that type 6 is suited for liquefiers of high and low capacity. Type 6 is suited for liquefiers of medium capacity (100-300 l/hr), which operate according to the refrigeration system. Type a is recommended for incorporation into liquefiers, where difficulties would arise when incorporating type 6. The following optimum conditions are given on the basis of experimental data (Refs. 2-5): charge of the reaction vessel with 30-120 g/hr of H_2 per cm^2 of cross section. The capacity of the liquefier drops by 33 to 35% when producing p- H_2 . Chrome-nickel catalysts, $Fe(OH)_3$, $Cr(OH)_3$, and $Mn(OH)_4$ are mentioned as catalysts. As the Cr-Ni catalyst is difficult to activate (Refs. 4, 5) and can easily be poisoned by

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O₂, it is only recommended for continuous operation. The hydroxide catalysts are activated at 0.1 mm Hg by heating them at 95 to 105°C for 24 hr. The poisoning by O₂ is reversible. If these catalysts are filled into the reaction vessel immediately after heating, their activity is reduced, so that twice as much must be taken. They can, however, be reactivated without heating, only in a vacuum. The required amount of the catalyst is calculated from the equation: ✓

$V_H/V_k = 44.7K \left\{ \log \left[(1 - C_0/C_p) / (1 - C/C_p) \right] \right\}$, where V_H is the given capacity of the installation (l p-H₂ per hr, with concentration C); V_k is the required volume of the catalyst, cm³; C_0 is the initial concentration of p-H₂ (25% as a rule); C_p is the equilibrium concentration of p-H₂ at the working temperature (99.8% as a rule); and K is the rate constant of the conversion reaction. The values of K for various catalysts are given in a table. There are 1 figure, 1 table, and 8 references: 5 Soviet-bloc and 3 non-Soviet-bloc.

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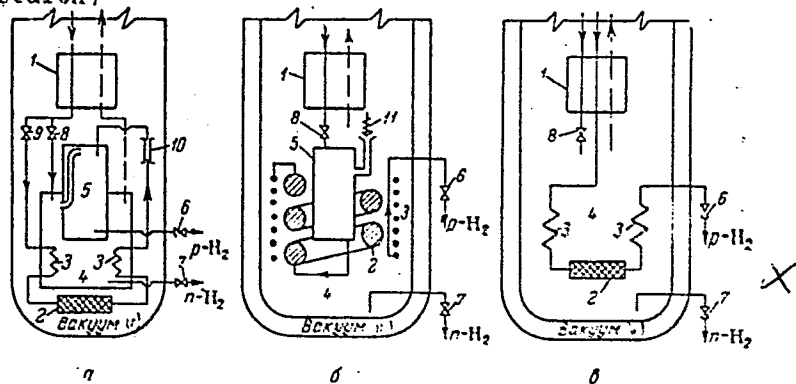
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ASSOCIATION: Ob'yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

Legend to Figure: v/vacuum



Legend to Table: 1) constants

$K \cdot 10^3$ g-mole/cm³.sec; 2) catalysts;

3) chrome-nickel

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1) Катализаторы	2) Константы $K \cdot 10^3$, г-моль/см ³ .сек	
	78°K	22°K
3) Хромоникелевый	1,5—1,7	1,6—2,1
Fe(OH) ₃	1,0—2,3	0,9—2,1
Cr(OH) ₃	0,56—0,74	0,9—1,6
Mn(OH) ₄	0,73—1,2	1,6—2,1

BUYANOV, R.A.; ZEL'DOVICH, A.G.; PILIPENKO, Yu.K.

Liquifier for producing parahydrogen and catalizers for the
ortho-para conversion of hydrogen. Prib. i tekhn. eksp. 6 no.2:
188-190 Mr-Apr '61. (MIRA 14:9)

1. Ob'yedinennyy institut yadernykh issledovaniy.
(Gases--Liquifaction) (Hydrogen)

BUYANOV, R. A.

Cand Chem Sci - (diss/ "Catalytic transformation of ortho-hydrogen into para-hydrogen at low temperatures ($78 + 21^{\circ}\text{K}$). " Moscow, 1961. 16 pp; (State Committee of the Council of Ministers USSR for Chemistry, Order of Labor Red Banner Scientific Research Physical Chemistry Inst imeni L. A. Karpov); number of copies not given; price not given; (KL, 6-61 sup, 197)

BUYANOV, R.A.; ANDRUSHKEVICH, M.M.; KARAKCHIYEV, L.G.

Nature and causes of aging of a chromium-iron-zinc catalyst.
Kin. i kat. 6 no. 6:1069-1072 N-D '65 (MIRA 19:1)

1. Institut kataliza Sibirskogo otdeleniya AN SSSR. Submitted
July 7, 1965.

BUYANOV, S.I.

Electric stop motion on Raschel machine shafts. Opyt. tekhn. opyt.
[MLP] no.35:12-14 '56. (MIRA 11:12)
(Warping machines) (Automatic control)

BUYANOV, V., inzh.

Use automotive transportation resources for grain transportation.
Avt.transp. 37 no.4:4-6 Ap '59. (MIRA 12:6)
(Grain--Transportation)

BUYANOV, V., inzh.

Automotive transportation in the service of the trade system.
Avt. transp. 37 no.10:17-19 0 '59. (MIRA 13:2)
(Transportation, Automotive)

BUYANOV, V., kand.meditsinikh nauk; REVZIN, I., starshiy nauchnyy sotrudnik,
laureat Stalinskoy premii.

Polymers preserve life; do you know what alloplasty is? Tekh.mol. 29
no.4:9-10 Ap '61. (MIRA 14:5)

(Alloplasty) (Nylon)

BUYANOV, V., inzh.

Central dispatcher service is a new stage in organizing transportation operations. Avt.transp. 39 no.9:12-14 S '61.

(MIRA 14:10)

(Transportation, Automotive)

BUYANOV, V., inzh.

Urgent objective of highway transport workers. Avt.transp.
40 no.5:14-16 Ny '62. (MIRA 15:5)
(Farm produce--Transportation)

BUYANOV, V.

Pay more attention to the transportation of commercial goods.
Avt. transp. 43 no.10:4-5 0 '65. (MIRA 18:10)

BUYANOV, V.A., inzh.; KORNEYEV, P.Ya., kand. tekhn. nauk

Improve train communications on directions with heavy freight
traffic. Avtom. telem. i svyaz' 3 no.5:35-37 My '59.
(MIRA 12:8)

(Railroads--Communication systems)

TIKHOMIROV, I.G., prof., doktor tekhn. nauk; TULUPOV, L.P., kand. tekhn. nauk;
NEVZOROV, A.V., kand. tekhn. nauk; BUYANOV, V.A., inzh.; MUKHO, P.B.,
inzh.; VINNICHENKO, A.V., inzh.; SHUL'ZHENKO, P.A., inzh.; YARMOLENKO,
V.Ye., inzh. (Gomel')

"Organization of railroad traffic" by F.P. Kochnev and others.
Reviewed by I.G. Tikhomirov and others. Zhel. dor. transp. 41
no.4:93-96 Ap '59. (MIRA 12:6)
(Railroads--Traffic)
(Kochnev, F.P.)

ALEKSANDROV, L.A.; AKSENOVA, Z.I.; ARTEM'YEV, S.P.; AFANAS'YEV, L.L.;
BONSITEYN, L.A.; BURKOV, M.S.; BUYANOV, V.A.; VELIKANOV, D.P.;
VERKHOVSKIY, I.A.; GOBERMAN, I.M.; DAVIDOVICH, L.N.; DEGTEREVA,
G.N.; ZEMSKOV, P.F.; KALABUKHOV, F.V.; KOLESNIK, P.A.; KOZHIN,
A.P.; KRAMARENKO, G.V.; KRUZE, I.L.; KURSHEV, A.N.; OSTROVSKIY,
N.B.; PASHINA, S.N.; SEMIKIN, N.V.; TARANOV, A.T.; TIKHOMIROV,
A.K.; ULITSKIY, P.S.; USHAKOV, B.P.; FILIPPOV, V.K.; CHERNYAVSKIY,
L.M.; CHUDINOV, A.A.; SHUPLYAKOV, S.I.; TIKHOMIROV, N.N.

Petr Valerianovich Kaniovskii; obituary. Avt.transp. 37
no.4:57 Ap '59. (MIRA 13:6)
(Kaniovskii, Petr Valerianovich, 1881-1959).

BUYANOV, V.A., inzh.; KORNEYEV, P.Ya., kand.tekhn.nauk

Principal double track lines with heavy traffic require automatic
block systems on both tracks. Avtom., telem.i svyaz' 4 no.3:
13-14 Mr '60. (MIRA 13:7)
(Railroads--Signaling--Block system)

BUYANOV, V.A., assistant; TULUPOV, L.P., nauchnyy sotrudnik

Concerning the question of the automatic control of train movement.
Avtom.telem. i sviaz' 4 no.11:7-8 N '60. (MIRA 13:11)

1. Belorusskiy institut inzhenerov zheleznodorozhnogo transporta (for Buyanov). 2. Otdeleniye vychislitel'noy tekhniki Vsesoyuznogo nauchno-issledovatel'skogo instituta zheleznodorozhnogo transporta Ministerstva putey soobshcheniya (for Tulupov).
(Railroads--Train dispatching)

ARTEM'YEV, S.P.; AFANAS'YEV, L.L.; BELOUSOV, I.I.; BENENSON, I.M.; BRONSHTEYN,
L.A.; BUYANOV, V.A.; VELIKANOV, D.P.; VERKHOVSKIY, I.A.; GORINOV,
A.V.; GOBERMAN, I.M.; DAVIDOVICH, L.N.; DEGTEREV, G.N.; ZVONKOV,
V.V.; KALABUKHOV, F.V.; KOMAROV, A.V.; KUDRYAVTSEV, A.S.; LIV'YANT,
Ya.A.; PETROV, A.P.; PETROV, V.I.; TARANOV, A.T.; TIKHOMIROV, N.N.;
FEDOROV, V.F.; CHUDINOV, A.A.; SHUPLYAKOV, S.I.; YANKIN, Yu.S.

Anatolii Pavlovich Aleksandrov; obituary. Avt.transp. 38 no.9:57
S '60. (MIRA 13:9)

(Aleksandrov, Anatolii Pavlovich, 1903-1960)

TIKHOMIROV, I.G., prof., doktor tekhn. nauk; BUYANOV, V.A., ass.;
VINNICHENKO, A.V., ass.; MUKHO, P.B., ass.; NEVZOROV, A.V.,
dots.; TULUPOV, L.P., dots.; SHUL'ZHENKO, P.A., ass.;
YARMOLENKO, V.Ye., ass.; Primal uchastiye PETROV, A.P.,
prof.; VEREVKINA, N.M., red.; BELEN'KAYA, I.Ye., tekhn.
red.

[Traffic organization in railroad transportation]Organiza-
tsiia dvizheniia na zheleznodorozhnom transporte; konspekt
lektsii. Pod obshchei red. I.G.Tikhomirova. Minsk, Izd-
vo M-va vysshego, srednego spetsial'nogo i professional'-
nogo obrazovaniia BSSR, 1961. 346 p. (MIRA 15:9)

1. Chlen-korrespondent Akademii nauk SSSR (for Petrov).
(Railroads--Traffic)

TIKHOMIROV, I.G., prof.; KORNEYEV, P.Ya., dotsent; BUYANOV, V.A., assistant

Discussing the use of centralized traffic control on double-track
lines. Trudy BIIZHT no.9:5-28 '61. (MIRA 16:9)

(Railroads--Signaling--Centralized traffic control)

TULUPOV, L.P., kand.tekhn.nauk; ANDRIANOV, V.P., inzh.; BUYANOV, V.A., inzh.

Organization of remote-controlled transmission of information to the
computing points of railroads. Vest.TSNII MPS 20 no.3:57-61 '61.
(MIRA 14:5)

(Railroads—Electronic equipment)

BOYKO, Ivan Ivanovich, kand. sel'khoz. nauk; BUYANOV, Vasilii
Andreyevich, inzh.; FILIN, A.G., red.; BODANOVA, A.P., tekhn.
red.

[Freight haulage with tractor trains]Perevozka грузов avto-
poezdami; opyt maiakov-avtotransportnikov. Moskva, Avto-
transizdat, 1962. 106 p. (MIRA 16:1)
(Tractor trains)
(Transportation, Automotive)

BUYANOV, V., inzh.

European agreement on international haulage of dangerous freight.
Avt.transp. 40 no.12:50-51 D '62. (MIRA 15:12)
(Transportation, Automotive)

KRASOVSKIY, G.A., kand.tekhn.nauk; BUYANOV, V.A., inzh.; MOROZOV, Yu.V.,
inzh.

Programmed control of the automatic centralization systems of
hump yards. Vest.TSNII MPS 41 no.8:59-61 '62. (MIRA 16:1)
(Railroads--Hump yards) (Automatic control)

PETROV, A.P., doktor tekhn. nauk, prof.; TULUPOV, L.P., kand. tekhn. nauk; KRYUKOV, N.D., kand. tekhn.nauk; GUNDOBIN, V.N., inzh.; VASIL'YEV, G.S., kand. tekhn. nauk; GRISHIN, M.S., kand. tekhn. nauk; MOROZOVA, K.N., inzh.; ROZE, V.A., inzh.; LEVSHIN, G.L., inzh.; BERNGARD, K.A., doktor tekhn. nauk, prof.; BIKCHENTAY, M.A., inzh.; BUYANOV, V.A., inzh.; ILOVAYSKIY, N.D., inzh.; MUKHAMEDOV, ~~U.N.~~, kand. tekhn.nauk; MIROSHNICHENKO, A.P., inzh.; ANDRIANOV, V.P., inzh.; BUTS, V.D., inzh.; KAZIMOV, A.A., inzh.; KIREYEV, O.P., inzh.; DYUFUR, S.L., kand. tekhn. nauk; USTINSKIY, A.A., kand. tekhn. nauk; MIKHAYLOV, S.M., inzh.; NESTEROV, Ye.P., kand. tekhn. nauk, retsenzent; LIVSHITS, V.N., inzh., retsenzent; PREDE, V.Yu., inzh., red.; VOROTNIKOVA, L.F., tekhn. red.

[Control of transportation processes using electronic digital computers] Upravlenie perevoznochnym protsessom s primeneniem elektronnykh tsifrovyykh vychislitel'nykh mashin. Pod obshchei red. A.P.Petrova. Moskva, Transzheldorizdat, 1963. 207 p. (MIRA 16:8)

1. Chlen-korrespondent AN SSSR (for Petrov).
(Railroads--Management) (Electronic digital computers)

TULUPOV, L.P., kand.tekhn.nauk; BUYANOV, V.A., inzh.

Compiling the train dispatching plan on an electronic digital computer.
Vest. TSNII MPS 22 no.2:55-59.'63. (MIRA 16:4)
(Railroads—Train dispatching) (Electronic digital computers)

BUYANOV, V. A., inzh.

Using electronic digital computers for the automation of the
processing of train information. Zhel. dor. transp. 45 no.1:
41-45 Ja '63. (MIRA 16:4)

(Electronic digital computers)
(Railroads—Management)

BUYANOV, V.I.

Chlorination of poor tin concentrates in the fluidized bed. Trudy
Vost.-Sib.fil. AN SSSR no.25:132-137 '60. (MIRA 13:9)
(Chlorination)

BUYANOV, V.I.

Chloride sublimation of lean tin concentrates. Trudy ZabNII
no.1:27-53 '62. (MIRA 18:2)

BUYANOV, V. I.

Hot granulation of tin concentrates. Trudy Vost. Sib. fil. AN
SSSR no. 41:11-14 '62. (MIRA 15:10)

1. Vostochno-Sibirskiy filial Sibirskogo otdeleniya AN SSSR.

(Tin ores) (Ore dressing)

BUYANOV, V. I.

Electrowinning of tin from chloride solutions in baths with rotating cathodes. Trudy Vost. Sib. fil. AN SSSR no. 41:15-18 '62. (MIRA 15:10)

1. Vostochno-Sibirskiy filial Sibirskogo otdeleniya AN SSSR.

(Tin—Electrometallurgy)

BUYANOV, V. I.; KRYUKOVA, V. N.; GUBEYDULINA, A. V.

Contact reduction of tin from a chloride solution by pulverized
zinc. Trudy Vost. Sib. fil. AN SSSR no.41:19-22 '62.
(MIRA 15:10)

1. Vostochno-Sibirskiy filial Sibirskogo otdeleniya AN SSSR.

(Tin—Electrometallurgy)
(Cementation(Metallurgy))

BUYANOV, V. I.; SHAFRINSKIY, Yu. S.

Determining tin chloride vapor pressure at low temperatures.

Trudy Vost. Sib. fil. AN SSSR no.41:29-32 '62.

(MIRA 15:10)

1. Vostochno-Sibirskiy filial Sibirskogo otdeleniya AN SSSR.

(Tin chloride) (Vapor pressure)

TIMONIN, M.A., kand. tekhn. nauk; SENCHENKO, G.I., kand. sel'-
khoz. nauk; ARINSHTEYN, A. I., kand. sel'khoz. nauk;
GORSHKOV, P.A., doktor sel'khoz. nauk; ZHUKOV, M.S.,
kand. sel'khoz. nauk; DEMKIN, A.P., kand. sel'khoz. nauk;
KRASHENINNIKOV, N.A., kand. sel'khoz. nauk; GORODNIY, N.G.,
doktor sel'khoz.nauk; REPYAKH, I.I., nauchn. sotr.; PIL'NIK,
V.I., kand. sel'khoz.nauk; KHANIN, M.D., kand. sel'khoz.
nauk; TSELIK, V.Z., st. nauchn. sotr.[deceased]; KOZINETS,
N.I., nauchn. sotr.; ZHALNINA, L.S., nauchn. sotr.;
LYASHENKO, S.N., kand. sel'khoz. nauk; GONCHAROV, G.I., inzh.;
BUYANOV, V.I., inzh.; RUDNIKOV, V.N., st. nauchn. sotr.;
BLOKHINA, V.V., red.; PROKOF'YEVA, A.N., tekhn.red.; SOKOLOVA, N.N.,
tekhn.red.

[Hemp] Konoplia. Moskva, Sel'khozizdat, 1963. 462 p.

(MIRA 16:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut lubyanykh
kul'tur (for all except Blokhina, Prokof'yeva, Sokolova).

(Hemp)

BUYANOV, V.I.; SHKOLYARENKO, N.D.; IOG, V.I.; Berezovich, I.N.

Concerning V.I. Iog and I.N. Berezovich's article "Change in the electrical network of a machine for disassembling and assembling precast forms in large-panel construction of dwellings." Prom. energ. 19 no. 6:43-45 Je'64 (MIRA 17:7)

BUYANOV, Viktor Ivanovich; VOLOVİK, S.S.; GONCHAROV, G.I.; LYASHENKO,
S.N.; SIDLYARENKO, V.V.; PESTRYAKOV, A.I., redaktor; FEDO-
TOVA, A.F., tekhnicheskij redaktor.

[Mechanization of hemp growing] Mekhanizatsiia konoplevodstva.
Moskva, Gos.izd-vo sel'khoz.lit-ry, 1956. 290 p. (MLRA 10:6)
(Hemp) (Agricultural machinery)

BUYANOV, V.I., inzhener.

Scutching machine for hemp. Sel'khoz mashina no.3:12-14 Mr '57.
(Textile machinery) (Hemp) (MLRA 10:5)

BUYANOV, V.M.

VINOGRADOV, V.V.; BUYANOV, V.M.

Roentgenomanometric examination during biliary tract surgery as
a diagnostic method [with summary in English]. Eksper.khir. 2 no.3:
8-13 My-Je '57. (MIRA 10:10)

1. Iz fakul'tetskoy khirurgicheskoy kliniki imeni S.I.Spasokukotskogo
(dir. - prof. A.N.Bakulev) II Moskovskogo meditsinskogo instituta
imeni I.V.Stalina.

(BILIARY TRACT, surg.

roentgenomanometry in)

(ROENTGENOGRAPHY

roentgenomanometry during biliary tract surg.)

SERGEYEV, Viktor Mikhaylovich; BUYANOV, Valentin Mikhaylovich

[Achievements of modern thoracic surgery] Uspekhi sovremennoi
grudnoi khirurgii. Moskva, Medgiz, 1959. 114 p. (MIRA 13:8)
(CHEST--SURGERY)

BUYANOV, V.M. (Moskva, 1-y Koptel'skiy per., d.7, kv.33); RYABOV, G.A.;
SMIRENSKAYA, Ye.M.

Bronchospasm during anesthesia. Grud. khir. 1 no.4:77-80
Jl-Ag '59. (MIRA 15:3)

1. Iz Instituta grudnoy khirurgii AMN SSSR (dir. - prof.
A.A. Busalov, nauchnyy rukovoditel' - akademik A.N. Bakulev).
(BRONCHI--DISEASES)
(ANESTHESIA)

ZHMUR, V.A., prof. (Moskva, Leninskiy pr., d.8); BUYANOV, V.M., mladshiy
nauchnyy sotrudnik

Experience with alloplasty of soft tissues. Vest.khir. 82
no.4:71-79 Ap '59. (MIRA 12:6)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - prof.A.N.
Bakulev) 2-go Moskovskogo meditsinskogo instituta i Instituta
grudnoy khirurgii AMN SSSR (dir. - prof.A.A.Busalov).
(TISSUES--TRANSPLANTATION)

x
x

BUYANOV, V.M. (Moskva, 1-y Koptel'skiy per., d.7, kv.33)

Condition of nylon used in vascular prosthesis. Vest.khir.
82 no.4:79-85 Ap '59. (MIRA 12:6)

1. Iz Instituta grudnoy khirurgii AMN SSSR (dir. - prof.A.N.
Bakulev).

(NYLON) (BLOOD VESSELS--SURGERY)

BUYANOV, V. M., Cand Med Sci -- (diss) "Replacement of defects of the thoracic aorta by inner framework nylon prosthesis." Moscow, 1960. 15 pp; (Second Moscow State Medical Inst im N. I. Pirogov); 250 copies; price not given; (KL, 17-60, 168)

BAKULEV, A.N.; RYNEYSKIY, S.V.; SAVEL'YEV, V.S.; ~~BUYANOV, V.M.~~;
ZUBAREV, R.P.; KOMAROV, B.D.; KOSTENKO, I.G.; ~~MOROZOV, Yu.I.~~

New method for extracorporeal blood circulation. Grud. khir.
2 no.4:3-5 JI-Ag '60. (MIRA 15:6)

1. Iz kliniki fakul'tetskoy khirurgii imeni Spasokukotskogo
(dir. - akademik A.N. Bakulev) II Moskovskogo meditsinskogo
instituta imeni N.I. Pirogova. Adres avtorov: Moskva, Leninskiy
prosp., d.8, Institut grudnoy khirurgii.
(BLOOD--CIRCULATION, ARTIFICIAL)

REVZIN, I.I., laureat Stalinskoy premii; BUYANOV, V.M., kand.med.nauk

Plastic materials serve mankind. Zdorov'e 6 no. 11:18 N '60.

(MIRA 13:10)

(PLASTICS)

ZHMUR, V.A.; BUYANOV, V.M.

Alloplasty in abdominal and chest surgery. Trudy NIIKHAI no.5:177-184 '61. (MIRA 15:8)

1. Iz kafedry fakul'tetskoy khirurgii 2-go Moskovskogo gosudarstvennogo meditsinskogo instituta im. N.I.Pirogova.
(ABDOMEN—SURGERY) (CHEST—SURGERY) (PLASTICS IN MEDICINE)

BUYANOV, V.M., kand.med. nauk.; BELIKOV, S.I.

Results of the alloplasty of postoperative hernias. Khirurgia
no.3:52-59 '63. (MIRA 16:5)

1. Iz kafedry fakul'tetskoy khirurgii imeni S.I.Spasokukotskogo
(zav.akad. A.N.Bakulev) lechebnogo fakul'teta Vtorogo Moskovskogo
gosudarstvennogo meditsinskogo instituta imeni N.I.Prigova.
(VENTRAL HERNIA) (SURGERY, PLASTIC)

BUYANOV, Valentin Mikhaylovich; KLIONER, Lev Isaakovich;
SERGEYEV, Viktor Mikhaylovich; KAZNIN, V.P., red.

[Textbook of surgery] Uchebnik khirurgii. Moskva, Meditsina, 1964. 423 p. (MIRA 17:6)

BUYANOV, V.M. (Moskva, Komsomol'skiy prospekt, d.36, kv.101)

Spontaneous pneumothorax in subpleural alveolar cancer of the
lungs. Grud. khir. 6 no.4:99 JI-Ag '64. (MIRA 18.4)

BAKULEV, A.N., akademik; BUNYATYAN, A.A., kand. med. nauk;
BURAKOVSKIY, V.I., doktor med. nauk; BUYANOV, V.M., dots.;
GULYAYEV, A.V., prof.; ZARETSKIY, V.V., doktor med. nauk;
IVANOV, V.A., prof.; KOLESNIKOV, S.A., prof.; LOBACHEV,
S.V., prof.; LOPUKHIN, Yu.M., prof.; MURATOVA, Kh.N., doktor
med. nauk; PETROVSKIY, B.V., zasl. deyatel' nauki RSFSR, prof.;
SAVEL'YEV, V.S., prof.; SERGEYEV, V.M., doktor med. nauk;
SOLOV'YEV, G.M., prof.; SOLOV'YEVA, I.P.; BURAKOVSKIY, V.I.,
red.

[Multivolume manual on surgery] Mnogotomnoe rukovodstvo po khi-
rurgii. Moskva, Meditsina. Vol.6. Pt.1. 1965. 577 p.
(MIRA 18:10)

1. Deystvitel'nyy chlen AMN SSSR (for Petrovskiy).

BUYANOV, V., general-mayor aviatsii, Geroy Sovetskogo Soyuza

Frank talk. Av.1 kosm. 46 no.6:33-39 Je '63. (MIRA 16:8)
(Russia--Airforce--Education, Nonmilitary)

BUYANOV, V.V.; KISIN, I.Ye.

Effect of euphyllin, papaverine, nitroglycerin and chloracizine on the tone of the coronary vessels and oxygen absorption by the myocardium under conditions of heart isolation by Langendorff's method. Vest. AMN SSSR 18 no.1:36-40 '63. (MIRA 16:2)

1. Institut farmakologii i khimioterapii AMN SSSR.
(CORONARY VESSELS) (HEART) (ABSORPTION (PHYSIOLOGY))
(~~DRUGS~~—PHYSIOLOGICAL EFFECT)

KISIN, I.Ye; BUYANOV, V.V.

Effect of adrenaline, ephedrine, and phenamine on the tonus of the coronary vessels and myocardial oxygen absorption in a heart isolated by the Langendort method. Biul. eksp. biol. i med. 55 no.2:68-72 F'63. (MIRA 16:6)

1. Iz laboratorii chastnoy farmakologii (zav. - deystvitel'nyy chlen AMN SSSR prof. V.V.Zakusov) Instituta farmakologii i khimioterapii AMN SSSR, Moskva.
(CORONARY VESSELS) (HEART--MUSCLE)
(PHARMACOLOGY) (RESPIRATION)

BUYANOV, Yu., inzh.

Sanitary engineering for large-panel apartment houses.
Zhil. stroi. no. 5:13-14 '59. (MIRA 12:8)
(Sanitary engineering) (Electric wiring)

RODIONOV, Leonid Yevgen'yevich, kand. tekhn. nauk. Prinsipal uchastiye
BUYANOV, Yu.A., kand. tekhn. nauk; BYKHOVSKAYA, S.N., red. izd-
va; SHKLYAR, S.Ya., tekhn. red.; LOMILINA, L.N., tekhn. red.

[Open-pit mining of mineral deposits] Otkrytaia razrabotka me-
storozhdenii poleznykh iskopaemykh. Moskva, Gos.nauchno-
tekhn. izd-vo lit-ry po gornomu delu, 1961. 294 p. (MIRA 15:1)
(Strip mining)

BUYANOV, Yu.D. gerany inzhener.

Rotor excavators for scooping at lower and higher grades.
(From foreign publications). Ger.zhur.no.4:39-40 Ap '56.
(Excavating machinery) (MLRA 9:7)

BUYANOV, Yu.D., gornyy inzhener.

Superpowered rotary excavator. Mekh trud.rab. 10 no.1:45-46
Ja '56. (MLRA 9:5)
(Germany, Western--Coal mining machinery)

BUYANOV, Yu.D., inzh.; GAEYZOV, M.S., inzh.; DAVIDENKO, Yu.K., inzh.;
DIONIS'YEV, A.I., inzh.; DEMIN, A.M., inzh.; KARPINSKIY, N.Ye.,
inzh.; RAZMYSLOV, Yu.S., kand.tekhn.nauk; SKRIPIKA, L.V., kand.
tekhn.nauk; TULOVSKIY, M.V., inzh.; YAMSHCHIKOV, S.M., inzh.;
OKHRIMENKO, V.A., red.izd-va; BERLOV, A.P., tekhn.red.

[Problems in open-cut mining of coal] Voprosy otkrytoi razrabotki
ugol'nykh mestorozhdenii. Pod obshchei red. I.U.S.Razmyslova.
Moskva, Ugletekhizdat, 1957. 338 p. (MIRA 11:4)
(Strip mining) (Coal mines and mining)

BUYANOV, YU. D.

127-12-5/28

AUTHOR: Mauer, I., Mining Engineer, Technical Manager of the West-Badeleben Mine. (translation by Yu. D. Buyanov, Mining Engineer)

TITLE: Open Mining Practice in the West-Badeleben Mine (Tekhnika otkrytykh razrabotok na rudnike West-Badeleben)

PERIODICAL: Gornyy Zhurnal, 1957, No 12, pp 19-21 (USSR)

ABSTRACT: The article, translated from German by Mining Engineer Yu.D. Buyanov, describes the open mining in the Sommerschenburg iron ore open pit of the West-Badeleben mine in East Germany. In geologic-structural respect, iron ore layers represent a syncline whose age of origination dates back to the Saxonian orogenesis. The summary thickness of the iron-ore layers amounts to about 15 m. In the eastern part of the syncline they outcrop. The extension of the open working on the strike is approximately 3 km. The iron content varies from 20 to 30%. The opening is carried out according to the non-transport system by means of 2 excavators of the "SM-1" type. Bore holes are drilled by means of "N-60"-type Salzgitter drilling machines. The ore is loaded by "UB-160" universal excavators with 1 m³ buckets into 6 m³ dump cars and transported by locomotives to

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Open Mining Practice in the West-Badeleben Mine

127-12-5/28

a crushing-classification plant situated at a distance of 4 km.
The ore is crushed by means of 2 jaw crushers to an 80 mm
size.

The article contains 2 figures.

ASSOCIATION: State Enterprise West-Badeleben, ~~German~~ Democratic Republic

AVAILABLE: Library of Congress

Card 2/2

BUYANOV, Yu. D., Cond Tech Sci--(diss) " Technological conditions
of rational ^{the} ~~application~~ ^{use} of rotor excavators." Mos, 1958. 15 pp
(Min of Higher Education USSR. Mos Mining Inst in ^{L.} ~~E.~~ V. Stalin),
120 copies (KL, 25-58, 112)

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BUYANOV, Yu.D.
TAUBERT, G., inzh. (Germanskaya Demokraticheskaya Respublika); BUYANOV, Yu.D.,
gornyy inzh. [translator].

Boring and blasting operations at the Eisenberg mine. Gor. zhur.
no.2:35-38 F '58. (MIRA 11:3)
(Germany, East--Mining engineering)

BUYANOV, Yu.D., inzh.

~~.....~~ Determining power for rotor excavator drives. Izv.vys.ucheb.zav.;
gor.shur. no.4:91-97 '58. (MIRA 11:11)

1. Moskovskiy gornyy institut.
(Excavating machinery--Electric driving)

BUYANOV, Yu.D., kand. tekhn. nauk

Technological conditions for the efficient use of rotary bucket
excavators. Nauch. trudy MGU no.26:43-63 '59. (MIRA 13:11)
(Excavating machinery)

RZHEVSKIY, V.V., prof., dokt. tekhn. nauk; BUYANOV, Yu.D., kand. tekhn. nauk;
VASIL'YEV, Ye.I., kand. tekhn. nauk; DEMIN, A.M., kand. tekhn. nauk;
KULESHOV, N.A., kand. tekhn. nauk; MEN'SHOV, B.G., kand. tekhn. nauk;
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RODIONOV, L.Ye., kand. tekhn. nauk; SIMKIN, B.A., kand. tekhn. nauk;
SUKHANOVA, Ye.M., kand. tekhn. nauk; YUMATOV, B.P., kand. tekhn. nauk;
KHOKHRYAKOV, V.S., kand. tekhn. nauk; ALEKSANDROV, N.N., gornyy inzh.;
ARISTOV, I.I., inzh.; BUGOSLAVSKIY, Yu.K., gornyy inzh.; DIDKOVSKIY,
D.Z., inzh.; ONOTSKIY, M.I., inzh.; STAKHEVICH, Ye.B., inzh.;
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M.A., tekhn. red.

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doktor tekhn.nauk; URAL'SKIY, B.P., kand.geol.-minerl.nauk; KURENKOVA,
N.N., gornyy tekhnik

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BUYANOV, Yu.D., kand. tekhn. nauk; BUTKEVICH, G.R., inzh.

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SHLAIN, I.B.

[Quarrying and processing crushed stone] Dobycha i pere-
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SHLAIN, I.B., kand. tekhn. nauk; BEYANOV, Yu.D., kand. tekhn. nauk;
LIPSON, M.A., kand. tekhn. nauk; RIELEVICH, N.B., kand. tekhn.
nauk; RCDIN, R.A., kand. tekhn. nauk

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18.8100

S/185/61/006/001/009/011
D210/D305

AUTHORS: Karal'nyk, S.M., Nikolayeva, L.H., Morkina, A.S. and
Buyanov, Yu.I.

TITLE: Study of the characteristic absorption of zinc and
copper in their alloys with aluminum and magnesium

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 6, no. 1, 1961,
121-218

TEXT: The authors investigated the displacement of the K-edge of copper in its alloys with aluminum, and that of zinc in its alloys with Al and Mg. The methods of investigation are not given, only references to previous publications. The results obtained were compared with the characteristic absorption of pure Zn and Cu and of some of their compounds; in the latter case, the authors' data are in fair agreement with those published abroad [Abstracter's note: Formulae of the compounds not given]. The authors state that although the methods used lacked precision they tried to remedy this by a very large number of measurements and by changing the experi-

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Study of the characteristic...

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mental conditions such as: the dimension of diaphragms and that of their openings, current intensities, thickness of samples. Experiments were carried out at room temperature and, with alloys of low concentration of Zn and Cu, at elevated temperatures as well: temperatures ranging 200°, 250°, 350°, 400°, 450°, 500° and 550°C. In all investigated alloys the K-edge absorption of Zn and Cu is more shifted towards the shorter waves than that of pure metals in the range: 1.5-4 ev. In their respective compounds this shift is generally larger. In alloys of eutectic systems Zn-Sn and Zn-Sb no displacement of K-edge has been observed. (In the latter experiments V. Lobodynko took part). The authors observed that for each kind of alloys (with contents equalling 3% to 5% for Cu and 2.2% - 1.9% for Zn) there exists a definite temperature at which the K-edge shifting, becomes markedly longer. These temperature comply with those at which copper and zinc form with aluminum a true one phase solution of limited solubility. The K-edge shifting at elevated temperatures does not occur immediately after the corresponding temperature is reached, but after about one hour's heating; when experiments were repeated with the same samples the subsequent shiftings were

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Study of the characteristic...

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less marked. In the authors' opinion this result points to a considerable change in energy levels of electrons of the added atoms provided that concentration of the latter is small. The possibility is discussed of regrouping electrons in the atoms of Cu and Zn from $4s$ to $4p$ level causing a "swelling" of respective atoms. By raising the temperature, the lattice of aluminum expands and is able to accommodate the admixture atoms. But the K-edge shift could be explained alternatively as Zn and Cu atoms loosing their $4s$ electrons altogether, as they do in their compounds. The loss of the screening effect of these electrons may lower the energy of the K level, shifting the K-edge toward shorter waves. The authors express their gratitude to M.N. Bryl and I.B. Staryy of the Pedinstitut of Odessa and S.A. Nemnonov from Sverdlovsk for their aid in spectrographic determinations. There are 3 figures, 4 tables and 12 references: 11 Soviet-bloc and 1 non-Soviet-bloc.

ASSOCIATION: Kyivsky ordena Lenina derzhavnyy universitet im. T.H. Shevchenko (Order of Lenin State University of Kyiv, im. T.H. Shevchenko)

SUBMITTED: June 17, 1960
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35
B

AUTHOR: Yeremenko, V. N. ; Buyanov, Yu. I. ; Prima, S. B.

ORG: Institute for Problems in the Science of Materials, AN UkrSSR (Institut problem materialovedeniya AN USSR)

TITLE: Structure of a phase diagram of a titanium-copper system

SOURCE: Poroshkovaya metallurgiya, no. 6, 1966, 77-87

TOPIC TAGS: titanium ^{compound} ~~copper system~~, phase diagram, ^{metal} ~~microdurometric~~ analysis, ^{copper compound}

ABSTRACT: Phase diagrams of a titanium-copper system have been studied by metallographic, x-ray and microdurometric analyses at concentrations of 20 to 100 at % Cu. The results obtained and the data in the literature have enabled the authors to construct a phase diagram of the Ti-Cu system. The system has six metalloides, of which $Ti_2 Cu$, $Ti Cu$, and $Ti Cu_4$ form phases of variable composition with narrow regions of homogeneity. Orig. art. has: 3 tables and 2 figures. [Based on authors' abstract] [AM]

SUB CODE: 11/ SUBM DATE: 19Mar66/ ORIG REF: 002/ OTH REF: 014/

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BUZANOV, Yu. P.

TROSHICHEV, V. M. - Khudozhnik i, GROMOV, V. L. - Kand. Tekh. Nauk, PORHELLES, E. L. - Arkh., PSHEMICHNIKOVA, O. S. - Arkh., BUYANOV, Yu. P. - Inzh., BYKOVSKIY, O. L. - Kand. Arkhitektury, RABINOVICH, I. L. - Arkh., CHERIKOVER, L. Z. - Arkh., ANDREYEVSKIY, V. G. - Kand Tekhn. Nauk

Nauchnoissledovatel'skiy institut stroitel'noy tekhniki Akademii arkhitektruy SSSR

Predlozheniya po oborudovaniyu i otdelke kvartir mnogoetazhnykh zhilykh domov v moskve (Al'bom)
Page 67

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